



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Traffic Resolution Amendment - Approve Speed Limits on Harney Lane, from West City Limits to East City Limits, and on Turner Road, from West City Limits to East City Limits

MEETING DATE: December 15, 1993

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council adopt a resolution amending the Traffic Resolution #87-163 to approve speed limits on the newly annexed segments on Harney Lane and Turner Road.

BACKGROUND INFORMATION: Public Works staff recently updated engineering and traffic studies for five streets. These studies are performed following State of California Department of Transportation (Caltrans) guidelines in accordance with California Vehicle Code Section 40802.

Based on the Vehicle Code Section 40802, it is necessary to conduct engineering and traffic studies every five years on "non-local" streets in order to use radar enforcement. "Non-local" streets are the collector and arterial streets shown on the Federal Aid System Maps. Four of the five streets have segments which have recently been annexed into the City limits. In order to use radar enforcement on the newly annexed street segments, it was necessary to conduct engineering and traffic studies. The engineering and traffic studies include measurements of prevailing speeds by a radar survey, review of unexpected conditions to the driver, and accident data.

Three of the five streets have no changes to existing speed limits and do not need City Council approval. These three streets are Almond Drive (30 mph), Crescent Avenue (35 mph), and Lower Sacramento Road (45 mph)/Woodhaven Lane (35 mph).

One of the two street segments that needs Council approval is on Harney Lane, from the west City limits to the Woodbridge Irrigation District (WID) Canal. The City recently annexed approximately 2,200 feet west of the WID Canal. Prior to the annexation, this segment was in the San Joaquin County's jurisdiction; however, it was not radar enforceable since there was not an engineering and traffic study performed on this street segment. The other street segment is on Turner Road, from the west City limits to 800 feet east of Lower Sacramento Road/Woodhaven Lane. The City recently annexed approximately 1,400 feet at the west end. The recommended speed limits are based on the 85th percentile speeds observed in the field. It is not recommended to further reduce the speeds due to unexpected conditions or accident data.

APPROVED

THOMAS A. PETERSON
City Manager



recycled paper

Traffic Resolution Amendment - Approve Speed Limits on Harney Lane, from West City Limits to East City Limits, and on Turner Road, from West City Limits to East City Limits
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The recommended speed limits for both streets are shown on the table below and on the attached narratives and engineering and traffic surveys. There are no changes in the remaining segments of Harney Lane and Turner Road. Council approval is only necessary on the asterisked segments.

<u>Harney Lane</u>	<u>Existing Speed Limit</u>	<u>Recommended Speed Limit</u>
*West City Limits to WID Canal	45 mph	55 mph
*WID Canal to East City Limits	45 mph	45 mph
<u>Turner Road</u>	<u>Existing Speed Limit</u>	<u>Recommended Speed Limit</u>
*West City Limits to 800 feet west of Lower Sacramento Road/Woodhaven Lane	55 mph	55 mph
*800 feet west of Lower Sacramento Road/Woodhaven Lane to Mills Avenue	40 mph	40 mph
Mills Avenue to Ham Lane	35 mph	35 mph
Ham Lane to Stockton Street	40 mph	40 mph
Stockton Street to East City Limits	45 mph	45 mph

If the City Council changes the recommended limits, those street segments will not be radar enforceable.

FUNDING: Funding to be provided by the Street Maintenance Account.


Jack L. Ronsko
Public Works Director

Prepared by Paula J. Fernandez, Associate Traffic Engineer

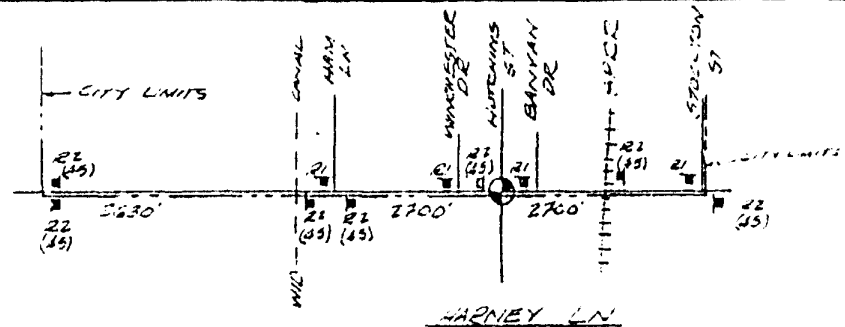
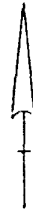
JLR/PJF/lm

Attachments

cc: City Attorney
Police Chief
Street Superintendent

ENGINEERING AND TRAFFIC SURVEY

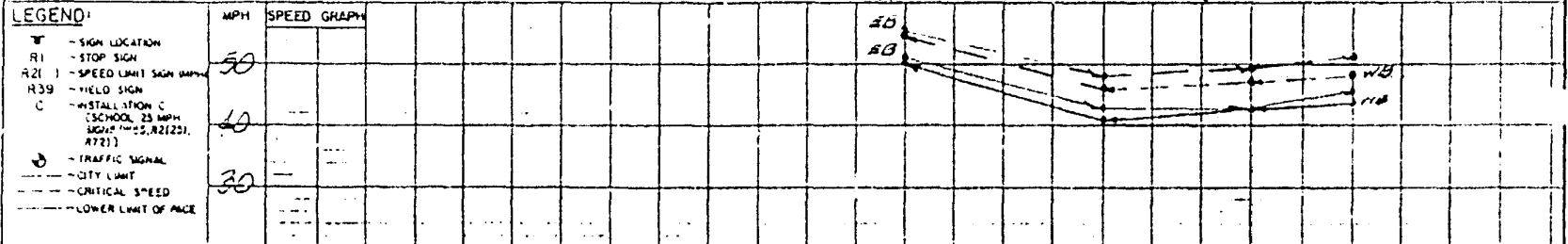
SEE NARRATIVE FOR
BACKGROUND INFORMATION



SPEED TABLE

ROADWAY WIDTH	42'	41'	40'
NO OF LANES	2 LANES	2 LANES	2 LANES
MEDIAN (TYPE)	NONE	2 NY LT TEN LANE	NONE
TRAFFIC SIGNAL DATA		BB ACT	
AVERAGE DAILY TRAFFIC	5400	400	9000
OBS. SPEED - CRITICAL 85%	N/A	36	43
	ER	38	42
- PACE (%)	NR	40-46 (76)	35-45 (73)
	ER	40-46 (61)	40-50 (67)
- MEDIAN 50%	N/A	40	41
	ER	41	43

EXISTING SPEED ZONE	45 MPH COUNTY	45 MPH	45 MPH	45 MPH COUNTY
PROPOSED SPEED ZONE	45 MPH COUNTY	55 MPH	45 MPH	45 MPH COUNTY



ACCIDENT PLOT	YR: '99	2	2	1	2	1	2	4
	YR: 1992	2	1	1	1	2	3	
ACCIDENT RATE - ACC/MILL VEH-MI.		2.1				1.6		

City of Lodi	Public Works Department	Harney Ln	SPEED ZONE SURVEY
Project No. 1992	Project Name	Project Date	Project Status
Project Location	Project Description	Project Budget	Project Completion

December 1993

SPEED ZONE REPORT - Harney Lane

° REFERENCE

Speed zone surveys are performed in the City of Lodi following State of California Department of Transportation (Caltrans) guidelines in accordance with Section 40802(b) of the California Vehicle Code. These guidelines are outlined in Chapter 8 of the Caltrans Traffic Manual.

° STUDY

Important factors to consider in determining the speed limit which is most appropriate to facilitate the orderly movement of traffic and that is reasonably safe are prevailing speeds, unexpected conditions to drivers, and accident records.

Prevailing Speeds (85th Percentile Speeds) - Reasonable speed limits conform to the actual behavior of the majority of motorists, and by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Speed limits should normally be established at the first five mile per hour increment below the 85th percentile speed. However, in matching existing conditions with the traffic safety needs of the community, engineering judgement may indicate the need for a further reduction of five miles per hour.

Eight radar surveys were performed and the 85th percentile speeds ranged from 46 to 56 mph as shown below:

<u>Harney Lane Segment</u>	<u>Eastbound</u>	<u>Westbound</u>
West City Limits - WID Canal	58 mph	56 mph
WID Canal - Hutchins Street	48 mph	46 mph
Hutchins Street - Stockton Street	49-52 mph	47-48 mph

Unexpected Conditions - When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, speed limits below the 85th percentile are warranted. The following factors were considered: roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile condition, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.

Accidents - Accident records for the two most recent years were considered in determining speed zones. Accidents on segments of roadways are classified by their accident rate. Accident rates are determined by the number of accidents occurring within a segment of roadway and the traffic volume within that segment. Accident rates are shown in accidents per million vehicle miles (ACC/MVM) and range from 2.1 to 3.6 ACC/MVM. The average city-wide accident rate is 4.1 ACC/MVM.

SPEEDZ15/TXTW.02M

SPEED ZONE REPORT - Harney Lane
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° CONCLUSION

West City Limit to WID Canal

This segment has recently been annexed by the City. A posted speed limit of 55 mph is appropriate based on the 85th percentile speeds observed in the field, unexpected conditions, and the available accident data received from the County. The County had this segment posted at 45 mph.

WID Canal to East City Limit

In reviewing this segment, the posted speed limit could be 45 or 50 mph. As stated above, the speed limit should be established at the first five mile per hour increment below the 85th percentile. Since the 85th percentile speeds ranged between 47 and 49 mph for three of the four radar surveys, the existing posted speed of 45 mph would be appropriate. It is not recommended to further reduce the speed limits due to unexpected conditions or accident records.

The existing and recommended speed limits are shown below:

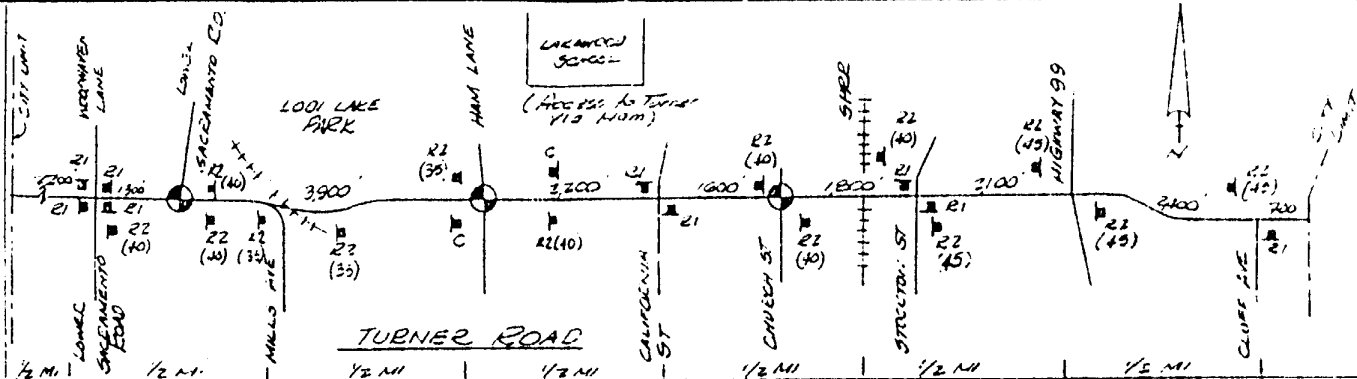
<u>Harney Lane Segment</u>	<u>Existing</u>	<u>Recommended</u>
West City Limit to WID Canal	45 mph	55 mph
WID Canal to East City Limit	45 mph	45 mph

Jack L. Ronsko
Public Works Director

JLR/PJF/lm

ENGINEERING AND TRAFFIC SURVEY

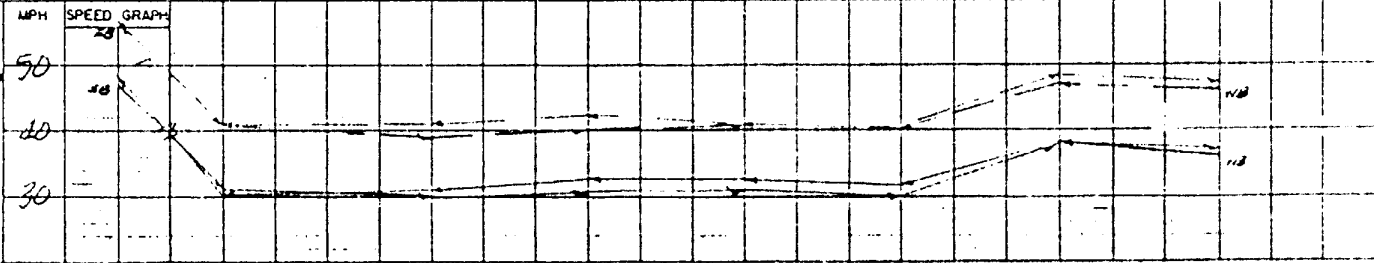
SEE NARRATIVE FOR
BACKGROUND INFORMATION



SPEED TABLE

ROADWAY WIDTH	24	24	24	24	24	24	24	24	24
NO OF LANES	2	2	2	2	2	2	2	2	2
MEDIAN (TYPE)									
TRAFFIC SIGNAL DATA									
AVERAGE DAILY TRAFFIC	7,000	10,000	15,500	16,500	10,500	13,000	11,500	3,500	
OBS. SPEED - CRITICAL, 85 th %	52	41	41	41	43	41	40	47	46
- PACE (%)	52	40	39	40	41	40	48	52	
- MEDIAN, 50 th %	52	30	30	30	32	31	32	38	36
EXISTING SPEED ZONE (conely)	55	40 MPH	35 MPH	35 MPH	40 MPH	40 MPH	45 MPH	45 MPH	
PROPOSED SPEED ZONE	55	40 MPH	35 MPH	35 MPH	40 MPH	40 MPH	45 MPH	45 MPH	

LEGEND:
 T - SIGN LOCATION
 R1 - STOP SIGN
 R21 - SPEED LIMIT SIGN (W/PLATE)
 R39 - FIELD SIGN
 C - INSTALLATION C (SCHOOL 25 MPH SIGNS, W/PLATE, R2123, R221)
 S - TRAFFIC SIGNAL
 - CITY LIGHT
 - CRITICAL SPEED
 - LOWER LIMIT OF PACE



ACCIDENT PLOT	YR: 1991	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
ACCIDENT RATE - ACC./MILL. VEH.-MI.	YR: 1992	3.2	1.2	1.5	3.9	3	1.1	2	2.0	3	1.4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TC	no. 1	date	signature	date	approved by
RIF 19					
DATE: 4-1-84					



CITY OF LODI
 PUBLIC WORKS DEPARTMENT

TURNER RD

**SPEED
ZONE
SURVEY**

86 B 004

December 1993

SPEED ZONE REPORT - Turner Road

° REFERENCE

Speed zone surveys are performed in the City of Lodi following State of California Department of Transportation (Caltrans) guidelines in accordance with Section 40802(b) of the California Vehicle Code. These guidelines are outlined in Chapter 8 of the Caltrans Traffic Manual.

° STUDY

Important factors to consider in determining the speed limit most appropriate to facilitate the orderly movement of traffic and which is reasonably safe are prevailing speeds, unexpected conditions to drivers, and accident records.

Prevailing Speeds (85th Percentile Speeds)

Reasonable speed limits conform to the actual behavior of the majority of motorists, and by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Speed limits should normally be established at the first five mile per hour increment below the 85th percentile speed. However, in matching existing conditions with the traffic safety needs of the community, engineering judgement may indicate the need for a further reduction of five miles per hour.

Sixteen radar surveys were performed and the 85th percentile speeds ranged from 39 to 57 mph as shown below:

<u>Turner Road Segment</u>	<u>Eastbound</u>	<u>Westbound</u>
West City Limits - Lower Sacramento Road/ Woodhaven Lane	57 mph	57 mph
Lower Sacramento Road/Woodhaven Lane - Mills Avenue	40 mph	41 mph
Mills Avenue - Ham Lane	39 mph	41 mph
Ham Lane - Stockton Street	40-41 mph	40-43 mph
Stockton Street - East City Limits	47-48 mph	46-47 mph

Unexpected Conditions

When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, speed limits below the 85th percentile are warranted. The following factors were considered: roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile condition, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.

In reviewing the area from Mills Avenue to Loma Drive, some of the south side does not have sidewalk and there is pedestrian activity from Lodi Lake Park. This is not readily apparent to drivers traveling eastbound.

SPEEDZ10/TXTW.02M

SPEED ZONE REPORT - Turner Road
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Roadside development in the area consists of the Lodi Lake Park and the drive-in across the street. Due to the lack of a food vendor in the Park, there is a large number of pedestrians crossing Turner Road.

There are a number of residential driveways and the Lake entrance and exit on Turner Road. Visibility from these driveways is often reduced due to on-street parking. The effects of the above are included in the recommendation to reduce the speed limit.

Accidents

Accident records of the two most recent years were considered in determining speed zones. Accidents on segments of roadways are classified by their accident rate. Accident rates are determined by the number of accidents occurring within a segment of roadway and the traffic volume within that segment. Accident rates are shown in accidents per million vehicle miles (ACC/MVM).

The accident rate is from 0.7 ACC/MVM to 4.5 ACC/MVM. The latest average City-wide accident rate is 4.1 ACC/MVM.

The accident rate on Turner Road, from Lower Sacramento Road (north) to Ham Lane, has decreased from 4.10 ACC/MVM (1991 speed zone survey) to 2.9 ACC/MVM (current speed zone survey). The speed limit was reduced from 40 to 35 mph in 1991.

° CONCLUSION

The following posted speed limits are appropriate:

<u>Turner Road Segment</u>	<u>Posted Speed Limit</u>	<u>Recommended Speed Limit</u>
West City Limits - 800 feet west of Lower Sacramento Road/Woodhaven Lane	55 mph	55 mph
800 feet west of Lower Sacramento Road/ Woodhaven Lane - Mills Avenue	40 mph	40 mph
Mills Avenue - Ham Lane	35 mph	35 mph
Ham Lane - Stockton Street	40 mph	40 mph
Stockton Street - East City Limits	45 mph	45 mph

West City Limits - 800 Feet West of Lower Sacramento Road/Woodhaven Lane

This segment has recently been annexed into the City limits. The current posted speed limit is 55 mph which was in the County's jurisdiction. Based on the 85th percentile speeds, a 55 mph speed limit is recommended. It is not recommended to further reduce the speed limit due to unexpected conditions or accident data.

SPEED ZONE REPORT - Turner Road
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800 Feet West of Lower Sacramento Road/Woodhaven Lane - East City Limit

There are no changes from the existing posted limits. On the segment between Mills Avenue and Ham Lane, it is recommended to further reduce the 85th percentile speed by five miles per hour due to unexpected conditions and accident data as mentioned above.

On the other segments, the posted speed limits are based on the 85th percentile speeds. It is not recommended to further reduce the speeds due to unexpected conditions or accident data.

Jack L. Ronsko
Public Works Director

JLR/PJF/lm

RESOLUTION NO. 93-152

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A RESOLUTION OF THE LODI CITY COUNCIL APPROVING SPEED LIMITS
ON HARNEY LANE, FROM WEST CITY LIMITS TO EAST CITY LIMITS,
AND ON TURNER ROAD, FROM WEST CITY LIMITS TO EAST CITY LIMITS
AND THEREBY AMENDING TRAFFIC RESOLUTION NO. 87-163

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RESOLVED, that the City Council of the City of Lodi does hereby
approve speed limits on Harney Lane, from West City Limits to East City
Limits, and on Turner Road, from West City Limits to East City Limits
as shown below:

<u>Harney Lane</u>	<u>Exist. Speed Limit</u>	<u>Recommended Speed Limit</u>
West City Limits to Woodbridge Irrigation Canal	45 mph	55 mph

Woodbridge Irrigation Canal to East City Limits	45 mph	45 mph
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<u>Turner Road</u>	<u>Exist. Speed Limit</u>	<u>Recommended Speed Limit</u>
West City Limits to 800 feet west of Lower Sacramento Road/Woodhaven Lane	55 mph	55 mph

800 feet west of Lower Sacramento Road/Woodhaven Lane to Mills Avenue	40 mph	40 mph
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FURTHER RESOLVED, that City of Lodi Traffic Resolution 87-163,
Section 7 "Speed Limits" is hereby amended by designating the speed
limits on Harney Lane, from West City Limits to East City Limits, and
on Turner Road, from West City Limits to East City Limits as set forth
above.

Dated: December 15, 1993

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I hereby certify that Resolution No. 93-152 was passed and adopted by the City Council of the City of Lodi in a regular meeting held December 15, 1993 by the following vote:

Ayes: Council Members - Davenport, Mann, Pennino, Snider,
Sieglock (Mayor)

Noes: Council Members - None

Absent: Council Members - None


Jennifer M. Perrin
City Clerk

93-152

RES93152/TXTA.01V